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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/457,173	12/08/1999	JAMES D. JACOBSON	JACOB100	7379

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EXAMINER

KIM, SUN U

ART UNIT PAPER NUMBER

1723

DATE MAILED: 01/29/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/457,173

Applicant(s)

Jacobson

Examiner

John Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Nov 20, 2001
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-102 is/are pending in the application.
- 4a) Of the above, claim(s) 6-13 and 31-101 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 14-30, and 102 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 20) ☐ Other: _____

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1. Claims 6-13 and 31-101 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention, the requirement having been traversed in Paper No. 6.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-5, 14-15, 17-18, 21-30 and 102 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention. Evidence that claims fail(s) to correspond in scope with that which applicant(s) regard as the invention can be found in Paper No. 11 filed 11/20/01. In that paper, applicant has stated on pages 3-4 that "This is very different from the result obtained in the Ishii patent which, regardless of whether adhesively bonded or heat fused, would result in a filter that clearly is made from separate and different layers that are preformed and fixed together in some fashion in a later time - no one would confuse an inner woven core, non-woven random fiber mat intermediate layers and polymeric outer layer with a filter structure made from the same original sheet or film. The essence of a monolithic membrane is simply absent in the Ishii patent" and on page 5 that "Ishii discloses adhesive or heat fusing two preformed layers of fundamentally different construction -- a coarse woven core and fibrous mat layers. Ishii clearly is not concerned with forming an integrated filter membrane and support structure that is monolithic, as defined herein. If the Ishii idea of adhesive or heat fusing two layers were applied to Van Rijn, the apparent result would be

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adhesively or heat fused preformed filter and support layers, with a visible line of distinction between them, which is little different from the disclosure in Van Rijn itself.” and this statement indicates that the invention is different from what is defined in the claim(s) because **the monolithic membrane is required to have both filter layer and support layer made from same material to form an integrated filter membrane and support structure that is monolithic**. However, such features of the monolithic membrane is not claimed in claims 1-5, 14-15, 17-18, 21-30 and 102. Furthermore, applicant contradicts monolithic membrane requirement by claiming the filter membrane in which the filter layer and support layer are comprised of different materials that are sufficiently compatible to form a monolithic membrane in claim 14.

4. Claims 1-5, 14-18, 21-30 and 102 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,753,014 (hereinafter referred to as Van Rijn) in view of U.S. Patent No. 5,275,725 (hereinafter referred to as Ishii et al). Van Rijn teaches a membrane filter comprising a polymeric filter layer made of polyamide (etchable and photosensitive) including etched micron-scaled precision shaped pores of square, circular, or elongated cross section and a polymeric support layer made including multiple support layers with different pore sizes wherein the support layer is thicker than the filter layer, pore size ranges from 5 nanometers to 50 microns and filter layer is used to remove leukocytes (see figures 1, 9-15b, 31-34; col. 1, line 57 - col. 9, line 5; col. 11, line 22 - col. 13, line 14). Van Rijn further teaches that filter layer and support layer are constituted from equivalent materials with the same or similar components and the filter of this kind is applicable in a wide temperature range with a good cohesion between the support

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and the membrane. Claims 1-5, 14-18, 21-30 and 102 essentially differ from the membrane filter of Van Rijn in reciting that the membrane is monolithic. Monolithic as stated by applicant means that there is no discernible lines of distinction between the filter and support layers. Ishii et al teach a membrane filter wherein polymeric membrane is heat fused into polymeric support layer to form an integrated membrane (see col. 9, line 62 - col. 10, line 53) and such integrated membrane is free from wrinkles which causes a breakage (see col. 12, line 62 - col. 13, line 5). It would have been obvious to a person of ordinary skill in the art to heat fuse a polymeric membrane into a polymeric support to form an integrated membrane (i.e. monolithic membrane) for providing a stronger membrane free from wrinkles.

5. Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Rijn in view of Ishii et al as applied to claim 1 above, and further in view of U.S. Patent No. 5,807,406 (hereinafter referred to as Brauker et al). Claims 19-20 essentially differ from the apparatus of Van Rijn in reciting that polymeric material of filter layer and support layer is an etchable or photosensitive polyimide material. Van Rijn teaches a membrane filter made of polyamide which is etchable or photosensitive. Brauker et al teaches a porous microfabricated polymer membrane structure made of etchable or photosensitive polyimide (see abstract). It would have been obvious to a person of ordinary skill in the art to substitute polyimide for polyamide of Van Rijn as a filter and a support layer since these materials are in a similar class of polymer and possessing characteristics of being etchable or photosensitive.

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6. Applicant's arguments filed 11/20/01 have been fully considered but they are not persuasive.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Kim whose telephone number is (703) 308-2350. The examiner can normally be reached on weekdays from 7:00 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker, can be reached on (703) 308-0457. The fax phone number for official response after final action is (703) 872-9311, and the fax phone number for all other official faxes is (703) 872-9310.

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When sending a draft amendment by fax, please mark the paper as "DRAFT"; otherwise, mark the paper "OFFICIAL". This will expedite the processing of the paper.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0651.


John Kim
Primary Examiner
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J. Kim
January 28, 2002